ATTACHMENT 1

GENERAL SPECIFICATION

FOR THE FABRICATION OF

THE INLET DUCTING FOR THE J1 TEST CELL

SEPTEMBER 2004

ARNOLD ENGINEERING DEVELOPMENT CENTER
ARNOLD AIR FORCE BASE TN 37389

1.0 SCOPE

This specification establishes the requirements for the fabrication of one (1) Bellmouth and one (1) Adaptor Bulkhead for Arnold Engineering Development Center (AEDC) located near Tullahoma, Tennessee.

2.0 APPLICABLE DOCUMENTS

2.1 Government Documents

None applicable.

2.2 Non-Government Documents

2.2.1 American Standard for Testing and Materials (ASTM) Standard

2.2.1.1 ASTM A-351/A-351M, Specification for Castings, Austenitic, Austenitic-Ferritic (Duplex), for Pressure-Containing Parts, latest edition.

2.2.1.2 ASTM A-703/A703M, Standard Specification for Steel Castings, General Requirements for Pressure Containing Parts, latest edition.

2.2.2 The American Society of Mechanical Engineers (ASME) Standard

2.2.2.1 ASME Boiler and Pressure Vessel Code, Section IX, Welding and Brazing Qualifications, latest edition.

2.3 Order of Precedence

In the event of conflict between the text of this document and the references cited, the text of this specification takes precedence. Nothing in this specification superseded applicable laws and regulations.

3.0 REQUIREMENTS

3.1 Quantity

3.1.1 One (1) Bellmouth per AEDC drawing RJ631846.22

3.1.2 One (1) Adaptor per AEDC drawing RJ631846.23

3.2 Specification

3.2.1 Material shall be austenitic stainless steel casting in accordance with specification ASTM A 351/A-351M and Boiler & Pressure Vessel Code, Section VIII, Division I.

3.3 Alloy

3.3.1 Grade CF8M

3.4 Heat Treat

3.4.1 Heat treat per Section 6.1, Table 1 of ASTM A-351.

3.5 Dimension Inspection

3.5.1 All dimensions marked with I on the drawings are to be inspected by the contractor and reports sent to AEDC to gain approval for shipment.

3.6 Surface Requirements

3.6.1 As-cast surfaces are permitted except in areas where the drawing specifies a surface finish requirement. All risers, machining burrs, and other injurious imperfections shall be removed and ground flush.

3.7 Pressure Test

3.7.1 None required.

3.8 Required Inspections

3.8.1 Impact test material per ASME Boiler & Pressure Vessel Code, Section VIII, UHA-51.

3.8.2 Inspect castings per ASME Boiler & Pressure Vessel Code, Section VIII, Appendix VII

3.9 Repairs

3.9.1 Repair by blending and/or welding is permitted with the approval of the Government. Prior to commencing the repair, the vendor shall submit a plan to include a description of the defect and the proposed repair technique. Welding procedures and welder qualifications shall be in accordance with ASME Boiler and Pressure Vessel Code, Section IX, Welding and Brazing Qualifications and shall be submitted with the repair plan for approval.

4.0 QUALITY ASSURANCE PROVISIONS

4.1 Material Certification

The manufacturer's material certification shall be furnished per ASTM A703/A703M before delivery to AEDC.

4.2 Contractor Inspection and Testing

The Contractor shall perform all inspections and test to assure compliance with this specification before delivery to AEDC. The results of all tests and inspections shall be sent to the Government prior to shipment. The contractor shall bear all costs of performing the tests.

4.3 Government Inspection and Testing:

In addition to the inspection and tests performed by the contractor for quality control, the Government will perform the following inspection and testing at AEDC prior to final acceptance:

- Visual Inspection/Fit Check
- Dimensional Inspection

The Contractor shall correct all deficiencies found at no cost to the Government.

5.0 PREPERATION OF DELIVERY

The contractor shall furnish all preservation, packaging, and packing to assure safe delivery of the equipment to AEDC. The Contractor shall bear all shipping costs for delivery of the contract items to AEDC.

6.0 ATTACHMENTS

6.1 Attachment 2, Drawing RJ631846.22

6.2 Attachment 3, Drawing RJ631846.23